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**United States Patent** [19]

Obata et al.

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[54] **METHOD FOR RECORDING AND REPRODUCING INFORMATION, APPARATUS THEREFOR AND RECORDING MEDIUM**

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[58] **Field of Search** ..... 347/164; 355/217, 355/218, 77; 430/48, 45, 46, 56

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**[57] ABSTRACT**

In the information recording an reproducing method and apparatus according to the present invention, picture image information is recorded as an analog quantity or a digital quantity on an information carrying medium in a planar manner at a high density, charge potential is read for outputting electric signals to correspond to the recorded picture image information and then the outputted signals are printed out by means of various display unit or output device, with high quality and high resolution as well as ease processing of the information. The information carrying medium provides a long period of storage of information and enables stored picture image information to be repeatedly reproduced with a picture quality according to need. Particularly, it is, according to the present invention, possible to read and output local potential of an information carrying medium with predetermined scanning density at a desired time, and so pictures of high quality may be output as a silver salt photograph is taken and reproduced by optically scanning the film. Thus, the present invention may be applied to a wide field including photographing, copying and printing.

**25 Claims, 61 Drawing Sheets**

